Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-22. (Cancelled)

23. (Previously Presented)   An image processing device for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said device comprising:

Original Images orthogonal transforming means for generating frequency components of an original image by performing orthogonal transform on said specific image data,

Enlarged Frequency estimating means for estimating frequency components of said enlarged image by performing nonlinear interpolation on the frequency components of said original image, and

Inverse orthogonal transform means for acquiring an enlarged image data by performing inverse orthogonal transform corresponding to said enlargement size on said estimated frequency components of the enlarged image.

24-31. (Cancelled)

32. (Previously Presented)   An image processing method for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said method comprising the steps of:

original image orthogonal transforming for performing orthogonal transform on said specific image data to generate frequency components of the original image,

enlarged frequency estimating for estimating frequency components of said enlarged image by performing nonlinear interpolation on the frequency components of said original image, and

inverse orthogonal transforming for performing inverse orthogonal transform – corresponding to said enlarged size – on the frequency components of said estimated enlarged image to acquire enlarged image data.

33-39. (Cancelled)

40. (Currently Amended)   A computer readable recording recorded medium on which a program is recorded, said program – when obtaining an enlarged image by enlarging a specific image data to a desired enlargement size – generating frequency components of an original ;image by performing orthogonal transform on said specific image data, estimating frequency components of said enlarged image by performing nonlinear interpolation on the frequency components of said original image, and performing inverse orthogonal transform corresponding to said enlarged size on the frequency components of said estimated enlarged image, thereby acquiring said enlarged image.

41-62. (Cancelled)

63. (Previously Presented)   An image processing device for acquiring an enlarged image by enlarging specific image data to a desired enlargement size, said device comprising:

original images orthogonal transforming means for generating frequency components of an original image by performing orthogonal transform on said specific image data;

enlarged frequency estimating means for estimating a nonlinear relation between frequency components of said enlarged image and component positions based on the frequency components of the original image to obtain the frequency components of said enlarged image; and

inverse orthogonal transform means for acquiring an enlarged image data by performing inverse orthogonal transform corresponding to said enlargement size on said obtained frequency components of the enlarged image.

64. (Previously Presented)   An image processing device according to claim 63, wherein said enlarged frequency estimating means estimates the nonlinear relation by using a neural network represented by a radial basis function network or a feedforward neural network.

65. (Previously Presented)   An image processing device according to claim 63, further comprising approximate coefficient deriving means for deriving an approximate coefficient vector in a radial basis function network from the frequency components of the original image,

wherein said enlarged frequency estimating means obtains the frequency components of said enlarged image from the approximate coefficient vector and radial basis functions.

66. (Previously Presented)   An image processing method for acquiring an enlarged image by enlarging specific image data to a desired enlargement size, said method comprising the steps of:

original image orthogonal transforming for performing orthogonal transform on said specific image data to generate frequency components of the original image;

enlarged frequency estimating for estimating a nonlinear relation between frequency components of said enlarged image and component positions based on the frequency components of the original image to obtain the frequency components of said enlarged image; and

inverse orthogonal transforming for performing inverse orthogonal transform corresponding to said enlarged size on the frequency components of said obtained enlarged image to acquire enlarged image data.

67. (Currently Amended)   A computer readable recording medium recording a program for acquiring an enlarged image by enlarging specific image data to a desired enlargement size, said program, when executed, causing a computer to perform the steps of:

original image orthogonal transforming for performing orthogonal transform on said specific image data to generate frequency components of the original image;

enlarged frequency estimating for estimating a nonlinear relation between frequency components of said enlarged image and component positions based on the frequency components of the original image to obtain the frequency components of said enlarged image; and

inverse orthogonal transforming for performing inverse orthogonal transform corresponding to said enlarged size on the frequency components of said obtained enlarged image to acquire enlarged image data.